

<p align="center">19 DIGITAL SIGNAL TRANSMITTING AND STORAGE DEVICES</p>	<p align="center">Page 1 of 2</p>
<p align="center">Department of Forensic Science Digital Evidence Procedures Manual</p>	<p>Amendment Designator:</p>
	<p>Effective Date: 22-January-2008</p>
<p align="center">19 DIGITAL SIGNAL TRANSMITTING AND STORAGE DEVICES</p> <p>19.1 Purpose</p> <p>This procedure is utilized to create a permanent record of stored data through the acquisition of logical files and the transcription of data viewed on cellular telephone displays and personal digital assistants (PDA). The acquisition shall be such that the data is accurately reproduced.</p> <p>19.2 Scope</p> <p>This procedure applies to the forensic examination of cellular telephones or personal digital assistants with and without cellular telephone transmission capabilities.</p> <p>19.3 Materials - Equipment (Hardware/Software)</p> <p>The following equipment and materials may be utilized and is at the discretion of the examiner based on the evidence submitted:</p> <ul style="list-style-type: none"> • Examination computer • Charging cable • Null modem cable • Serial communication PCMCIA card • Serial to USB adaptor • Appropriate proprietary cables • Data communications cable or cradle • SIM Card reader • RF shielding • Digital camera and/or camcorder • Manufacturer-supplied software for evidentiary cell phones or personal digital assistants • Data Pilot • Data Pilot Secure View • Paraben Device Seizure <p>19.4 Limitations</p> <p>Currently there is no software available that will acquire all user data in the memory of all cell phones. Some type of manual transcription of the data viewed on the cell phone's display may have to occur.</p> <p>Some software tools do not capture all of the data in the device's associated data fields. This limitation can be identified through comparison of user records displayed on the PDA/cell phone with records transferred by the tool to the examination computer.</p> <p>19.5 Safety</p> <p>Electronic devices inappropriately connected might short circuit, causing malfunction, failure and/or disintegration, resulting in smoke or fire hazard.</p> <p>19.6 Procedures</p> <p>19.6.1 Conduct a physical examination of the PDA/cell phone.</p>	

<p align="center">19 DIGITAL SIGNAL TRANSMITTING AND STORAGE DEVICES</p>	<p align="center">Page 2 of 2</p>
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<p>19.6.1.1 Document any manufacturer information (e.g. model numbers and serial numbers). Note any unusual markings.</p> <p>19.6.1.2 Label submitted evidentiary items.</p> <p>19.6.2 Charge the PDA/cell phone.</p> <p>19.6.3 Radio Frequency shielding is recommended during cell phone examinations. If available, place the cell phone within approved RF shielding.</p> <p>19.6.4 Ensure the examination computer is powered off.</p> <p>19.6.5 Power on the examination computer and ensure it passes the performance verification tests.</p> <p>19.6.6 Document relevant system or user information. Reference the PDA or cell phone's User's Manual, if necessary.</p> <p>19.6.7 Connect the evidentiary cell phone or PDA to the examination computer using a data cable.</p> <p>19.6.8 Invoke the software applications that are applicable to the evidentiary cell phone to acquire logical user data.</p> <p>19.6.9 Manually transcribe or photograph other user data that was not transferred.</p> <p>19.6.10 All recovered data must be documented in the examination notes either manually or through photographs and printouts.</p> <p>19.6.11 (If applicable) Remove the Subscriber Identity Module (SIM) and transfer the user data in its memory to the examination computer with the appropriate SIM card reading software and hardware.</p> <p>19.6.12 (If applicable) Connect a cable between the earpiece jack of the evidentiary cell phone and the line-in jack of the examination computer. Record all voice audio in the PDA/cell phone's memory to the examination computer.</p> <p>19.6.13 (If applicable) Remove the flash memory card for subsequent examinations.</p> <p>19.6.14 Visually compare the user records on the display of the PDA/cell phone to the records transferred to the examination computer (listen, if applicable). Document the comparison in the examination notes. If extracted data is incomplete, it may be necessary to perform step 19.6.8.</p> <p>19.6.15 Save the logical files to blank, appropriately wiped and formatted media.</p> <p>19.6.16 Perform further examination on write-protected logical files as necessary.</p> <p>19.6.17 Remove the media as necessary and label all media appropriately.</p> <p>19.6.18 Case notes should include the physical examination, system or user features, the results of the visual comparison, the contents of the derivative evidence, and any additional data extraction and presentation that was performed.</p> <p>19.7 References</p> <p>Owner's Manuals, User's Manuals and appropriate software manuals should be referenced for equipment and operating instructions.</p> <p align="right">◆ End</p>	